

Application of SEA 305 to Drivers of Special Purpose Buses

The following information is provided as a training guide for those persons operating a special purpose bus (as defined in I.C. 20-27-2-10) after June 30, 2006.

Special Purpose Bus – Defined

I.C. 20-27-2-10 “Special Purpose Bus”

Sec. 10. “Special purpose bus” means a motor vehicle:

- (1) that is designed and constructed for the accommodation of more than ten (10) passengers;
- (2) that:
 - (A) meets the federal school bus safety requirements under 49 U.S.C. 30125 except the:
 - (i) stop signal arm required under federal motor vehicle safety standard (FMVSS) no. 131; and
 - (ii) flashing lamps required under federal motor vehicle safety standard (FMVSS) no 108;
 - (B) when owned by a school corporation and used to transport students, complies with the Federal Motor Carrier Safety Regulations as prescribed by the United States Department of Transportation Federal Motor Carrier Safety Administration as set forth in 49 CFR Chapter III Subchapter B; or
 - (C) when owned by a school corporation and used to transport students, is a motor coach type bus with a capacity of at least thirty (30) passengers and gross vehicle weight rating greater than twenty-six thousand (26,000) pounds; and
- (3) that is used by a school corporation for transportation purposes appropriate under **I.C. 20-27-9-5**

Speed Limits – Special Purpose Buses

Senate Enrolled Act No. 305 provides that special purpose buses are now subject to the same speed limit and railroad crossing laws as school buses.

I.C. 9-21-5-14

Sec. 14. (a) A person may not operate a school bus or a special purpose bus at a speed greater than:

- (1) fifty-five (55) miles per hour on a federal or state highway; or
 - (2) forty (40) miles per hour on any county or township highway.
- (b) If the posted speed limit is lower than the absolute limits set in this section, or if the absolute limits do not apply, the maximum lawful speed of a bus is the posted speed limit.

A driver who knowingly or intentionally violates this section commits a Class C misdemeanor. The penalty for the commission of a Class C misdemeanor is imprisonment for a fixed term of not more than sixty (60) days; a fine of not more than five hundred dollars (\$500.00) may be added.

- Even though the lower speed limits for special purpose buses seemingly create a large disparity in speeds between the general motoring public and a bus, there is no data to support the argument that lower bus speeds will cause a higher incidence of rear end crashes. School buses have been required to operate at speed limits less than those for the general motoring public for many years with no significant collisions reported as a result of the differences in speed.

If a vehicle traveling 70 mph strikes the rear of a special purpose bus traveling at 55 mph, the resulting crash would be as if the bus was standing still and was struck by a vehicle traveling 15 mph. The results of that impact would be minimal but the secondary impact (i.e., if the bus driver lost control of the bus after being struck and the bus left the road and struck a stationary object,) would be a 55 mph collision. A bus traveling 70 mph that is struck in the rear by a vehicle traveling 85 mph still results in a 15 mph impact. However, the injury to the bus' passengers and damage to the bus itself in a secondary collision is potentially much greater because of the increased speed of the bus.

Drivers of school or special purpose buses who are concerned about the speed differential being too great between their bus and other traffic could opt for a non-interstate route.

- The possibility of death increases as well as the number and severity of injuries sustained by occupants of any vehicle involved in a crash at higher speeds.
- Studies have shown that for every ten (10) miles an hour a vehicle is operated over 55 mph, approximately \$.10 can be added to the cost of a gallon of gasoline/diesel fuel.
- The time difference between driving 55 mph and 70 mph is only about 14 seconds more per mile which adds less than five (5) minutes to a twenty mile trip.
- I.C. 9-21-5-9 provides that a vehicle that travels at a speed less than the established maximum shall travel in the right lanes to provide for better flow of traffic on the interstate highways.
- Good defensive driving practices must prevail: be observant for the actions of all other traffic, drive with day-time running lights or headlights in operation, employ the use of the strobe light (if the bus is so equipped), use turn signals, avoid "lane hopping", and allow adequate travel time plus time for unexpected delays.

Managing Space

Another very important defensive driving practice is to maintain an adequate following distance behind other vehicles. The Indiana CDL Test Booklet, Section 2.7 states that one good rule to follow is to allow at least one second for each 10 feet of vehicle length at speeds up to forty mph; at greater speeds, add one second for safety.

How can you determine if you have the proper following space? Wait until the vehicle ahead passes a shadow on the road, a pavement marking, or some other clear landmark then count off the seconds like this: “one thousand-one, one thousand-and-two” and so on until you reach the same spot. Compare your count with the rule of one second for every 10 feet of length. If you are driving a 38 foot bus and counted less than four (4) seconds, you are too close. Drive back a little and count again until you have four (4) seconds of following distance (or five (5) seconds if you are going over 40 mph). Remember, that when the road is slippery, you need much more space to stop. (For more information on “managing space”, refer to pages 92 and 93 of the Indiana Commercial Driver’s License Test Booklet which can be found on the Indiana Department of Revenue’s website at www.dor.in.gov. At the homepage, click on “Motor Carrier Services”).

- The sentence in I.C. 9-21-5-14(b) that states “If the posted speed limit is lower than the absolute limits or if the absolute limits do not apply, the maximum lawful speed of a bus is the posted speed limit” can be somewhat confusing because of its ambiguousness.

Legal counsel for the Department of Education offered an opinion in 1996 to address the ambiguity:

“The section of the code indicates that the maximum lawful speed of a school bus is the posted limit only when the posted limit is lower than 55 mph on a state or federal highway or lower than 40 mph on a county or township highway **OR** when the absolute limits of 55 and 40 mph do not apply. This statute creates some ambiguity since it does not define when the absolute limits of 55 and 40 mph do not apply. However, without making any statement to define when the absolute limits do not apply, the legislature has not created any exceptions to the absolute limit.”

Since the first sentence of the statute sets absolute maximum speed limits for school buses on Indiana’s highways and based upon the fact that the legislature has not specified when “the absolute limits do not apply,” the only conclusion that should be derived from the statute is that school and special purpose buses must not be operated in excess of those absolute limits until the legislature creates exceptions for when the absolute limits will not apply.



Railroad Crossings

I.C. 9-21-12-17 states that the driver of a school bus or a special purpose bus carrying a passenger shall stop the bus within fifty (50) feet but not less than fifteen (15) feet from the nearest rail of a railroad track at grade. The driver is required to listen through an open door, look in both directions along the track for an approaching train and look for signals indicating the approach of a train. The driver may not proceed until it is safe to proceed. When it is safe to proceed, the driver shall select a gear that will allow the driver to cross the tracks without changing gears. The driver is prohibited from shifting gears while crossing the tracks. The driver is not required to stop when a police officer is directing the flow of traffic across the tracks. A person who violates this section SHALL have his driver's license suspended for not less than 60 days in addition to a fine of up to \$500.00. (Emphasis added)

Crossing railroads safely has always been a challenge for conscientious school bus drivers and up to now, drivers of special purpose buses were not required by law to stop the bus at railroad crossings. However, as of July 1, 2006, drivers of special purpose buses must obey the same requirements as school bus drivers in regard to railroad crossings.

Because drivers of special purpose buses make trips to possibly unfamiliar areas, i.e., taking the baseball team to a rival school's baseball field, prior route planning becomes even more important, especially when it comes to crossing railroads.

(In addition to the items listed below, drivers of school buses and/or special purpose buses can find other valuable safety information on Operation Lifesaver's website at www.oli.org. At the homepage, click the "Training" button and then select "School Bus Drivers" or drivers may wish to view the video "Decide Smart, Arrive Safe". To view the video, click on this link: <http://www.doe.state.in.us/safety/decidesmart/welcome.html>).

- Drivers need to know the location of all crossings on the route.
- Drivers need to know the location of any crossing where there may not be enough room to safely stop the bus before or after crossing a set of tracks.

Example: State Road 67 runs on the south side of and parallel to an east-west set of railroad tracks. The distance between the tracks and the highway is 35 feet. You are driving a 24-foot long special purpose bus (5 seating rows) containing the 18 players of your school's baseball team to a game with a rival school. You are traveling westbound on SR 67 preparing to turn north on Smith Road which crosses over the railroad tracks.

Question: Is there enough space between the tracks and SR 67 to “safely stop the bus” before proceeding across the tracks?

Answer: No. “Room to safely stop” in this context means there must be at least 15 feet in front of the bus plus the length of the bus. In this case, at least 45 - 50 feet of space would be required (15 feet in front plus 24 feet for the bus plus a minimum of 15 feet behind the bus). Remember, a driver must be able to stop the bus in a space where no portion of the bus extends onto the tracks or into an adjacent road way.



Multiple Tracks

- Drivers need to know the location of any crossing where there may not be enough room to safely stop the bus between multiple sets of tracks.

Example: You are driving a 42 foot long, transit-style special purpose bus loaded with 30 students. You are approaching a railroad crossing that has two sets of parallel tracks spaced 45 feet apart. Visibility is unlimited in both directions.

Question #1: After stopping as required at the first set of tracks, you proceed safely across. Is there enough room between the two sets of tracks to safely stop the bus before negotiating the second set of tracks?

Answer: No. In order to have enough space to safely stop the bus between multiple tracks, a minimum of 15 feet in front and 15 feet in back of the bus plus the length of the bus is required. In this situation, a minimum of 72 feet of space is necessary.

Question #2: Since there is not enough room to safely stop the bus between the tracks, how should you handle this situation?

Answer: Stop the bus as required at the first set of tracks. Make sure it is safe to cross both sets of tracks then cross both sets of tracks without stopping for the second set.

Drivers who must negotiate a crossing where there is more than one set of tracks must exercise extra caution. If there is ever any doubt whether a bus will fit in the available space, an alternate route must be taken.

If there is sufficient storage space between sets of tracks, stop at each set making sure it is safe before proceeding.

Drivers must remember that although crossing a set or sets of railroad tracks at a certain location may be most convenient, it may not always be the safest place to cross. Never give convenience priority over safety, even if it means having to drive to a safer crossing a few miles away. The only thing harder for a driver to do than drive a distance to a safer crossing is to explain why he or she didn't when the bus is struck by a train at the more convenient crossing.

- Drivers must also know if there are crossings on the route where the tracks are abandoned or unused, since many of these crossings may still have warning devices in place (crossbuck signs, lights, etc.). And, even though a driver may have personal knowledge that a particular set of tracks is no longer in use, the driver still must stop the bus since the statute provides no exemption from stopping at abandoned or unused crossings.
- When traveling on a higher speed limit highway, it is especially important for drivers to begin gradually slowing the bus even as much as one-half mile or more before reaching a crossing. Slowing gradually allows traffic that is not required to stop to react appropriately to the stopping bus. It is good practice for drivers to activate the bus' four-way hazard flashers to alert traffic approaching from behind that the bus is slowing and preparing to stop.
- On a multi-lane highway, the far right-hand lane is the safest lane in which to stop the bus for a railroad crossing.
- When the bus has stopped, it is recommended that drivers shift the bus' transmission into neutral and set the parking brake while depressing the service brake pedal to keep the brake lights activated. These actions will minimize the possibility of the bus rolling onto the tracks should a driver become incapacitated at that moment due to a medical emergency, i.e., heart attack, stroke, etc., or in the unlikely event of a collision.
- The bus should be stopped no closer than 15 feet from the nearest rail or further away than 50 feet. A good "rule of thumb" for drivers of conventional style buses to follow is to stop the bus so that the nearest rail of the tracks is just visible over the hood of the bus. Drivers of transit-style buses will have a different perspective and are cautioned about stopping too closely to the tracks.
- Both the service door AND the driver's window must be fully opened to allow the driver to look and listen for the approach of a train. Drivers should ensure that all passengers are silent and not just quiet while listening for an approaching train! Additionally, utilize the noise suppression switch, if the bus is so equipped, to turn off all defroster/heater fans and the radio(s). If there is no suppression switch, manually turn off all noise-making electric motors and radio(s).
- Drivers must look and listen intently for an adequate period of time to become sure that there is no approaching train. Remember, many of today's railroad tracks have individual rails welded together that essentially make the rails one-piece.

Continuous rails make the approach of a train much quieter than the noise made by a train's wheels passing over the joints of individual rails of the older style tracks.

- The service door should be closed for safety before driving across railroad tracks. Drivers should not proceed until it is safe to proceed. If the door must be kept open to determine that it is safe, then it isn't!
- A driver who has stopped the bus at the minimum distance of fifteen feet from the nearest rail should avoid "inching" up closer to the track to "get a better look". Inching up doesn't improve visibility but it does increase the risk. A train's engine can overhang the width of the track by about three feet on either side. Additionally, a train's load could potentially extend beyond the three feet overhang of the engine.
- The speed of an approaching train and its distance from the crossing can be deceptive due to a few factors: 1) large vehicles appear to be moving slower than they actually are, 2) the angle at which the driver views the oncoming train, 3) the optical illusion of the parallel rails converging in the distance, and 4) a person's inability to judge longer distances accurately.
- A train traveling at 60 mph is moving at approximately 90 feet per second and can cover one-quarter mile (1320 feet or about 4.5 football fields) in about 15 seconds. Conceivably, it could take a bus at least 15 seconds to cross a set of tracks when one includes the time it takes to recognize that a train is approaching, the time it takes for a driver to decide to cross the tracks and the time for the bus to accelerate across the tracks. So, even though a train may "appear" to be a long distance away, there actually may not be enough time to traverse the tracks before the train arrives at the crossing.
- It takes over one mile to bring to a stop the average 16,000,000 (million) pound freight train traveling at 55 mph after the engineer applies the emergency brakes. Additionally, due to the emergency stop, a derailment is likely.
- The law requires drivers to stop the bus at a railroad crossing when "carrying a passenger". A "passenger" is not only children (students). "Passenger" can include but not be limited to mechanics, teachers, coaches, etc. Conversely, a special purpose bus NOT carrying a passenger is not required to stop. However, always stopping is considered best practice so as to not confuse the motoring public or to potentially cause bus drivers to develop a habit that might cause them to "forget" there are passengers on board and drive through a crossing without stopping.
- Occasionally, drivers may encounter grade crossing warning devices that are malfunctioning, i.e., red flashing lights in operation and/or crossing gates in the down position, when it is obvious there is no train approaching.

Drivers may not drive around a malfunctioning crossing gate under any circumstances. Doing so is not only extremely dangerous, it's illegal! Driving around a crossing gate could bring a charge of "driving left of center" or "disregarding an official traffic control device" or both. In the event of a

malfunctioning crossing gate, drivers should contact their base by radio or telephone and request a police officer be sent to the crossing.

Drivers who encounter a crossing without crossing gates where the red flashing lights are in operation and which are sometimes accompanied by a ringing bell, may proceed through the flashing lights after making a complete stop and determining with certainty that a train is not approaching unless prohibited by school policy.

It is recommended that drivers do not back their bus to reverse their direction of travel from a crossing with either of these types of malfunctioning signals.

- Drivers are not required to stop at a railroad crossing if traffic is being directed across the tracks by a police officer. Drivers ARE required to stop before proceeding if traffic is being directed across the tracks by anyone other than a police officer, i.e., railroad crew member.

Blocking Emergency Exits Prohibited

I.C. 9-21-12-18

Sec. 18. (a) Whenever a school bus or special purpose bus is at a place of departure for transporting passengers, the school bus or special purpose bus emergency escape exits, doors, emergency exit windows, roof exits, and service door must be free of any obstruction that:

- (1) inhibits or obstructs an exit; or
- (2) renders the means of exit hazardous

(b) A driver who knowingly operates a school bus or special purpose bus in violation of subsection (a) is subject to section 11(c)* of this chapter.

(c) A person who knowingly directs a driver to operate a school bus or special purpose bus in violation of subsection (a) is subject to section 11(c)* of this chapter.

(d) A school corporation or an entity that employs:

- (1) a driver who knowingly operates a school bus or special purpose bus in violation of subsection (a); or
- (2) a person who knowingly directs a driver to operate a school bus or special purpose bus in violation of subsection (a);

is subject to section 11(c)* of this chapter.

*Section 11(c) – Penalty Class “B” infraction: up to \$1000.00 fine.

- This new statute, effective as of July 1, 2006, expressly prohibits the blocking of emergency escape routes from a school bus or special purpose bus by the bus driver or any person who directs the driver to cause an emergency exit to be

blocked. In the event of a violation, the person causing the violation to be committed is the person who would receive the citation.

- Ideally, the school or special purpose bus should only be used for its intended purpose and design: the transportation of people and not cargo. However, since not all circumstances are ideal there may be occasions when cargo must be transported on a bus with school children, especially on a special purpose bus.

Recommended Options for the Transportation of Cargo

Keep in mind, the statute does not prohibit cargo items from being carried inside the bus. It only requires that the emergency exits, and by default the center aisle of the bus, are not inhibited in any way.

The first option to transport cargo on a bus is to place the cargo items in the storage compartments of the bus, if so equipped. Items that will not fit in the storage compartments should be carried by separate conveyance, i.e., truck, van, etc.

If storage compartments and/or a separate conveyance are not available or if transporting by separate conveyance is not feasible, the second and least desirable option is to place the cargo items inside the passenger area of the bus.

Cargo items carried inside the bus must be placed in locations that will not inhibit emergency egress of the passengers or ingress of first responder personnel. The items must be restrained in such a fashion that they will stay in place in the event the bus is involved in a collision or other circumstance where emergency evacuation or emergency entry is necessary. Therefore, careful consideration must be given as to what will be carried inside the bus, its placement and how it will be secured.

Smaller light-weight items might be placed in a seat and held in place with a “bungee” cord. Objects with significant weight should not be secured with a bungee cord since the inertial weight of the object will cause the cord to stretch during a collision and release the object to potentially move into a location that would inhibit an emergency exit. Additionally, an item that is not restrained or comes loose from its restraints because it is poorly restrained will become a projectile inside the bus that can cause serious injury to passengers. Remember, in a frontal crash, unsecured or poorly secured items will continue to move forward at the same speed the bus was traveling at impact. In a roll-over crash, unsecured or poorly secured items will move freely about the inside of the bus.

The decision whether to place cargo items on the bus, where they are placed and the method of securing the items is left up to the local school corporation; however, it must be remembered that a cargo item must have a level of restraint commensurate with its weight: the heavier the object, the greater the level of restraint is required.